

15.5. Percentage of female admissions whose insanity is due to syphilis, 6.1. Percentage of admissions (male and females) whose insanity is due to syphilis, 10.4. The much larger figures for admissions over inmates are due to the short period of survival of cases admitted for syphilitic mental disorders.

Venereal Disease Incidence at Different Ages.—KING and SYDENSTRICKER (*Public Health Reports*, 1920, xxxv, 3091) summarize their studies as follows: (1) For the purpose of throwing some light upon the question of the age incidence of venereal infections, and in the absence of complete data for any definitely and accurately observed population group, certain tabulations were made of approximately 8400 case reports of venereal diseases among white persons in Indiana.

(2) Considering these cases as fair samples of the total cases of that type which actually exist in the population under consideration, indices of venereal disease incidence according to age of onset were computed for persons of both sexes and of different marital condition by adjusting the age distribution of cases to that for the population of Indiana in 1910. (3) While the data cannot be considered conclusive, they suggest the following points: (a) The greatest incidence of venereal infections occurs in early adult ages, between seventeen and twenty-five. This is true of both males and females. (b) The incidence of venereal infections is earlier among females than males. The modal or peak age for females is nineteen years, while that for males is approximately twenty-one years. (c) While the data are not definite on this point, the evidence suggests that among persons married at the time of report, venereal infections were largely premarital in the case of males and post-marital in the case of females. (d) There is a wide divergence in the incidence curves for males who were married previous to the time of report and for males who had remained single. In the one case, infections were confined chiefly to the younger adult ages (under twenty); in the other, the incidence in the adult ages (twenty to twenty-four) was considerably higher than in the younger ages. The effect of marriage apparently was to greatly lessen the incidence of venereal infection among males. (e) Gonorrhea apparently occurs at slightly younger ages than syphilis or chaneroid among both males and females. (4) In view of the limitations of the data with respect to the number of cases reported, the stage at which disease was reported, the possible errors in determining accurately the age at which infection occurred, and the use of the 1910 age distribution of population, these observations cannot, of course, be regarded as definitely conclusive.

Studies on the Lethal Action of Some Meningococci on Mice, with Special Reference to the Protective Properties of Antimeningococcic Serum.—NEILL and TAFT (*Hygienic Laboratory Bulletin*, November, 1920, p. 93) endeavored to determine the value of protection tests as a method of estimating the therapeutic value of antimeningococcic serum. It was found that dead meningococci were about as fatal for mice as were living ones, though large doses were required in either case. The method does not show relative value except when practically the difference is very great. The irregular results do not lend encouragement to the use of the method for practical purposes.

Report on Investigation of Typhoid Fever Epidemic at Greenville, Tenn.—HARRUB (*Public Health Reports*, 1921, xxxvi, 72), a Sanitary Engineer, reports an outbreak of 61 cases with seven deaths due to contaminated spring water used as a municipal supply. The supply was treated with hypochlorite but the disinfectant was not properly employed, and analysis of the water showed it to be of a poor sanitary quality.

The Tropin Reactions of Antimeningococcus Serum.—EVANS, (*Hygienic Laboratory Bulletin*, November, 1920, p. 43) gives the following summary of the work reported: The phagocytic test for bacteriotropins is a workable test which distinguishes clearly between a normal serum and a serum containing the specific antibodies. The important phagocytic antibodies in meningococcus serum are bacteriotropins. That is, they are not dependent upon complement for their activity. A high concentration of tropins does not inhibit phagocytic action, but there is in serum a poisonous substance active against leukocytes of a foreign species, which suppresses phagocytic activity in low dilutions of the serum. No stains of meningococci were found which resisted phagocytosis after treatment with serum containing the specific tropins. All strains of meningococci tested produced tropins in inoculated rabbits. But not every inoculated rabbit produced tropins, presumably because of individual differences in the animals. Some strains regularly produced tropins in higher titer than other strains. After long artificial cultivation meningococci may lose their tropinogenic power, and their power to respond to active tropins. The tropin reactions of meningococci are specific, dividing them into well-defined groups, with no cross-reaction between the typical strains of the main groups. Sixty-three strains of meningococci were available for classification according to their tropin reactions. They were divided into four distinct groups, designated R, S, T, and U. Group R included 61.9 per cent. of the strains; group S included 25.4 per cent. of the strains; group T included 4.7 per cent. of the strains and group U included 1.6 per cent. of the strains. Groups R, S, T, and U are distinct groups. Every strain belonging to those groups was equal to every other strain of the homologous group in its power of absorbing tropins from serums of the homologous group. The typical strains of groups R, S, T, and U did not absorb tropins specific to a heterologous group. But 4 atypical strains were found which did, in a slight degree, absorb tropins of another group. A fifth group (Z) included 6.4 per cent. of the total number of strains of meningococci. Unlike the other four groups, group Z is not distinct but is related to the others. This relationship is shown by a partial absorption of tropins specific for those groups. Moreover, the strains of group Z differ in their relationship to one another, and they differ in their relationship to the four main groups. The strains of group Z are further distinguished by a tendency to spontaneous phagocytosis. In the majority of immune serums a good tropin content is accompanied by a good agglutinin content. But agglutinins may be produced without tropins, and tropins may be produced without agglutinins. Under unfavorable conditions the deterioration of agglutinins and tropins did not follow a parallel course. Certain conditions destroyed the action of the agglutinins without injuring the tropins,